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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,367	05/29/2001	Rita Kumar	11378.14USC1	6299

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EXAMINER

WANG, SHENGJUN

ART UNIT PAPER NUMBER

1617

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/867,367	KUMAR ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shengjun Wang	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-12 is/are pending in the application.
- 4a) Of the above claim(s) 1,7,8 and 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,3,5,6 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 2, 2003 has been entered.
2. Claims 1 and 7-8, 10-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7.
3. Applicant's election with traverse of invention group I, claims 2-6 in Paper No. 7 is acknowledged. The traversal is on the ground(s) that the applicants do not wish to be bound by the logic of the examiner. This is not found persuasive because the inventions are distinct for reasons given in the prior office action.
4. The claims have been examined insofar as they read on elected invention. Note newly added claims 10-12 are drawn to method of treating waste water of invention group III. No shift of examined subject matter has been made.

### ***Claims Rejections 35 U.S.C. 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the

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specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claim recite a step of isolating *Bacillus alkalophilus* CBTCC/micro/8 and *bacillus sp* CBTCC/micro/9 from sewage by a *standard* method. In the 132 declaration, Dr. Rita Kumar states that both strains are individually novel. Therefore, there is reasonable doubt that using a common source, (sewage) and a standard method, one of ordinary skill in the art would be able to isolate the novel strains herein. To isolate a novel strain, either the method, or the source, is unique, or novel. One of ordinary skill in the art would not be able to isolate the strains herein by using source other than what applicant used.

***Claim Rejections 35 U.S.C. 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims <sup>3.5;</sup>~~2, 6~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyer et al. (U), Boyer et al. (V) in view of Horikoshi et al. (A), Colaruotolo et al. (B), Boyer et al. (IDS), Takowa et al. (IDS) and Jones (IDS).

8. Boyer et al. teaches a method of isolating and inoculating alkaliphilic bacteria, *Bacillus alkalophilus* and/ or *Bacillus sp.* from sewage comprising culturing the isolate at high pH, wherein the medium containing magnesium, tryptone, yeast extract and a proper buffer. See, the abstract, and page 239, the left column in Boyer (U); and the abstract, and the right column at page 992 in Boyer et al. (V).

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9. Boyer references do not teach expressly additional particular steps of acclimatization employed herein, particularly, the medium employed herein.

However, Horikoshi et al. teaches that the medium employed herein are known generally for bacterial culture in general, and for alkaliphilic bacteria in particular. See, particularly, columns 3-8. Colaruotolo et al. teaches that it is known to acclimating a microorganism to an environment wherein the microorganism is applied. See, column 3, lines 20-50. Boyer et al. (IDS) teaches a procedure for selecting alkaliphilic bacterial comprising first isolate alkaliphilic bacteria from soil and culture the isolated bacteria with different conditions (such as high pH) and medium sequentially to optimize and select the most desirable alkaliphilic bacteria (producing acid). The medium employed comprising tryptone, yeast extract, sodium carbonate, sodium bicarbonate, soy flour, etc. See, particularly, the examples 1 and 2 in columns 9-10. Jones also teaches that in the process of isolation of alkaliphilic bacteria, various condition and media may be employed according the particular property of the bacteria. See, column 7, lines 50 bridging column 8, line 64. Further, Takowa et al teach that alkaliphilic bacteria, e.g., *Bacillus* sp. are known to be useful for treating alkaline waste-water. See, particularly, the abstract.

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to further select and acclimate the alkaliphilic bacteria isolated for sewage to be best suit for alkaline wastewater treatment, specifically, be suitable at high pH and be able to produce acids

A person of ordinary skill in the art would have been motivated to further select and acclimate the alkaliphilic bacteria isolated for sewage to be best suit for alkaline wastewater treatment, specifically, be suitable at high pH and be able to produce acids because it is known in

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the art that bacteria may be selected and acclimated to be used in an environments for a specific purpose, such as in an alkaline condition, and for producing acid to neutralize the alkaline condition. The optimization of the media and the particular procedure for selection and acclimation using old and well known media ingredients, such as tryptone, soy flour, carbonate, etc, and old and well known steps, such as inoculation, centrifuge, or isolation, is seen to be an optimization of a result effective parameter, and is considered within the skill of the artisan, absent evidence to the contrary. See, In re Boesch and Slaney (CCPA) 204 USPQ 215. Note the intended use in “textile industry” alkaline waste does not distinguish the claimed subject matter from the prior art. First, intended used of a product or composition will not further limit claims drawn to a product or composition. See, e.g., In re Hack 114 USPQ 161. Further, is a composition is known to be useful for treating alkaline waste water, it would have been reasonably expected to be useful for treating alkaline waste water from any source, including textile industry.

### ***Response to the Arguments***

Applicants’ amendments and remarks, and the declaration under 37 C.F.R. 1.132 submitted December 2, 2003 have been fully considered, but are not persuasive with respect to the rejections set forth above.

The declaration under 37 C.F.R. 1.132 by Rita Kumar concerns about the identities of *Bacillus alkalophilus* CBTCC/micro/8 and *bacillus sp* CBTCC/micro/9 and their deposition. Kumar also states the unpredictability in microbiology art. However, each and every steps recited herein are obvious over the prior arts on the record.

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Claim 9 is unenabled because of the step (a) as discussed above. However, since applicants made proper deposit of the biological materials herein employed, claim 9 would be enabled if without the step (a), and would be allowable since both strains are novel as stated in the 132 declaration.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang, Ph.D. whose telephone number is (571)272-0632. The examiner can normally be reached on Monday-Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (571)272-0629. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9302.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

 **SHENGJUN WANG  
PRIMARY EXAMINER**

Shengjun Wang

April 30, 2004